

## **Manuals of reference**

Wilensky, U., & Rand, W. (2015). *An Introduction to Agent-Based Modeling: Modeling Natural, Social, and Engineered Complex Systems with NetLogo*. MIT Press.

Railsback, S. F., & Grimm, V. (2019). *Agent-Based and Individual-Based Modeling: A Practical Introduction*. Princeton: Princeton University Press.

## **Basic readings**

### Unit 1:

Epstein, J. M. (1999). Agent-based computational models and generative social science. *Complexity*, 4(5), 41-60.

Gilbert, N., & Terna, P. (2000). How to build and use agent-based models in social science. *Mind & Society*, 1(1), 57-72.

### Unit 2:

Wilensky, U., & Rand, W. (2016). *An Introduction to Agent-Based Modeling: Modeling Natural, Social, and Engineered Complex Systems with NetLogo*. MIT Press.

### **[Chapters 2 & 3]**

### Unit 3:

Wilensky, U., & Rand, W. (2016). *An Introduction to Agent-Based Modeling: Modeling Natural, Social, and Engineered Complex Systems with NetLogo*. MIT Press.

### **[Chapters 4 & 5]**

Axelrod, R. (1997). The Dissemination of Culture: A Model with Local Convergence and Global Polarisation. *The Journal of Conflict Resolution*, 41(2), 203-226.

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### Unit 4:

Centola, D., Willer, R., & Macy, M. (2005). The Emperor's Dilemma: A Computational Model of Self-Enforcing Norms. *American Journal of Sociology*, 110(4), 1009-1040.

### Unit 5:

Grimm, V., et al. (2020). The ODD Protocol for Describing Agent-Based and Other Simulation Models: A Second Update to Improve Clarity, Replication, and Structural Realism. *Journal of Artificial Societies and Social Simulation*, 23(2), 7.

### Unit 6:

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### Unit 7:

- Bruch, E., & Atwell, J. (2013). Agent-Based Models in Empirical Social Research. *Sociological Methods & Research*, 44(2), 186-221.
- Feitosa, F. F., Le, Q. B., Vlek, P. L. G., Miguel V Monteiro, A., & Rosembach, R. (2012). Countering Urban Segregation in Brazilian Cities: Policy-Oriented Explorations Using Agent-Based Simulation. *Environment and Planning B: Planning and Design*, 39(6), 1131–1150.

## Additional readings

- Acerbi, A., Mesoudi, A., & Smolla, M. (2020). *Individual-based models of cultural evolution. A step-by-step guide using R*. doi:110.31219/osf.io/32v6a
- Banos, A., Lang, C., & Marilleau, N. (2015). Agent-Based Spatial Simulation with NetLogo Volume 1: Introduction and Bases. London: ISTE Press - Elsevier.
- Chattoe-Brown, E. (2013). Why sociology should use agent based modelling. *Sociological Research Online*, 18(3), 31-41.
- De Matos Fernandez, C. A., Flache, A., Bakker, D. M., & Dijkstra, J. (2022). A bad barrel spoils a good apple: How uncertainty and networks affect whether matching rules can foster cooperation. *Journal of Artificial Societies and Social Simulation*, 25(1), 6.
- Epstein, J. (2006). *Generative Social Science: Studies in Agent-Based Computational Modeling*. Princeton: Princeton University Press.
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- Epstein, J. M. (2008, October 31). Why Model? Retrieved May 5, 2015, from <http://jasss.soc.surrey.ac.uk/11/4/12.html>
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Helbing, D., & Baitetti, S. (2013). How to Do Agent-Based Simulations in the Future: From Modeling Social Mechanisms to Emergent Phenomena and Interactive Systems Design (SSRN Scholarly Paper No. ID 2339770). Rochester: Social Science Research Network.

Izquierdo, L. NetLogo 5.0 Quick Guide,  
(<http://ccl.northwestern.edu/netlogo/resources.shtml>)

Laatabi, A., et al. (2018). ODD+2D: An ODD Based Protocol for Mapping Data to Empirical AMBs. *Journal of Artificial Societies and Social Simulation*, 21(2), 9.

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León Medina, F. (2017). Analytical Sociology and Agent-Based Modeling: Is Generative Sufficiency Sufficient? *Sociological Theory*, 35(3), 157-178.

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Stefik, M., & Bobrow, D. G. (1985). Object-Oriented Programming: Themes and Variations. *AI Magazine*, 6(4), 40.

Tapia, E. (2021). Group's contribution to shaping ethnic residential segregation: A dynamic approach. *Journal of Computational Social Science*. doi:10.1007/s42001-021-00136-6

Tisue, S., & Wilensky U. (2004). NetLogo: Design and implementation of a multi-agent modeling environment (<http://ccl.northwestern.edu/papers/>).

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